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AUTHOR Davis, Larry L.
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ABSTRACT

This description of a three year project of services to educators by the Kentucky Department of Education Materials Center includes the current collections, future collections, and the anticipated procedures necessary to provide optimum service and best utilize those materials. The plan involves better coordination between the three major components of the Kentucky system--the curriculum laboratory, materials center, and retrieval services--by conversion of subject headings from Sears to ERIC as a major change strategy. A flow chart of the information retrieval process is included. Appendices display the comparative cost of ERIC searches using DIALOG and WISE, circulation records for the materials center in 1977, a general request form, a facsimile printout of a materials center request, an ERIC search printout including RIE and CIJE, a categorical breakdown classification system, and sample computer printout of ERIC searches. (Author/JEG)

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Materials Center Collections and Procedures: Suggested Modifications

by **Larry L. Davis**

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

unit for dissemination, office of communication services
kentucky state department of education 1978

IR007013

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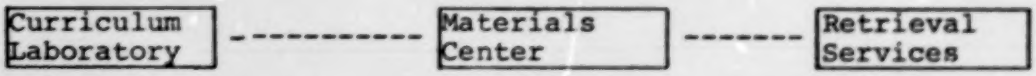
The development of a statewide materials center for education is not necessarily the insurmountable task that many may believe it to be. The success or failure of such a center is based simply upon two major assessments: (1) the services needed by clientele, and (2) the efficient means of connecting services and clientele. It is the purpose of this paper to present a concise, three-year project of services to educators by the Kentucky Department of Education Materials Center including the current collections, future collections, and the anticipated procedures necessary to provide optimum service and best utilize those materials.

The organizational structure of the three major sources of information as it currently exists:



These three sources are, at present, loosely connected to provide services to clientele. All three have the following points in common.

(1) All three are interested in providing educational services and/or materials;

(2) All three house resources to meet specified needs of clientele; and

(3) All three are housed conjunctively in the same physical area.

But, even with these three points in their favor, they still lack the overall correlation of services/materials to provide optimum efficiency.

The ideal method for greatest utilization to link these resources is, first, to assess the abilities of each of the component parts at this time, and, second, to correlate the resources in a manner which would provide the user with the greatest amount of service with the least amount of time required by the educator to access the total system.

The Curriculum Laboratory

The Curriculum Laboratory is a part of the Bureau of Instruction. Currently, from observation, it is the task of the Curriculum Laboratory to collect various samples of curriculum materials, primarily curriculum guides, for the use of school districts as models for their own curriculum development efforts.

At present, this poses a problem inasmuch as collection is the prime objective. Acquisition of materials is a relatively easy task. In the case of a curriculum guide, a simple phone call, letter, or purchase order is used to acquire the desired data. However, without the aforementioned correlation for acquisition, the Curriculum Lab is receiving curriculum guide previously acquired or presently being acquired by the Materials Center. One would ask, "Is this duplication necessary?"

The personnel of the Curriculum Lab have the capability to provide a source of human expertise, i.e., the human factor in the form of either themselves or their colleagues in the Bureau of Instruction. Theirs becomes a role of connecting people with people, using the Materials Center as the resource base for both consultants and LEA educators.

At present, projecting possible growth over a three-year period, it is conceivable that the Curriculum Laboratory, in its current role as gatherer of curriculum guides, may acquire as many as 10,000 guides in more than thirteen curriculum areas. Add to this various materials placed there by the KDE Curriculum Consultants, e.g., books, classroom-usable items, pamphlets, etc., and one finds a wide range of materials without an adequate means of accessing the data. Materials which cannot be adequately accessed, for all practical purposes, may as well not exist.

Therefore, using the continuum for documentation centers presented by George Grimes in his article, "Information Centers . . ." (ED 034 560), page 6, one finds the Curriculum Laboratory fulfilling only parts I, II, and III, as shown in Table 1, page 3a. No provision has been made for storage and retrieval of this material.

Such a system would be feasible if a browsing collection could be constructed. However, with the reality of the distance and expense of such visits by professionals in the local school districts, this becomes an ideal rather than a reality. There are two reasons to support this statement. First, teachers simply have too many things to do, both professionally and personally, to use their own time and money to travel any great distance to browse and collect materials. And, second, administrators, due to the cost involved in replacing their teachers with substitutes, are reticent about release time for their staff.

TABLE 1

LIBRARIANSHIP AND DOCUMENTATION

A Functional Comparison

	Curriculum Laboratory	Materials Center	Information Retrieval
I. Creating or Generating			
II. Recording Editing			
III. Acquiring Locating Selecting			
IV. Assimilating Cataloging Classifying Indexing			
V. Analyzing Abstracting Annotating Biblio. Prep. Translating Data analyzing			
VI. Storing			
VII. Retrieving			
VIII. Serving Reference answering Circulating Reproducing			
IX. Administering and Operating Services			

If educators will rely on any source of information, it would be one in which a simple telephone call or letter would access the needed data. And, in regard to accessing data by mail or phone, if a system does not exist which is comprehensive in scope with regard to available resources, both SDE/LRA public relations will suffer as will the cost effectiveness of monies expended to collect items for use by the local school districts.

Information Retrieval

Information Retrieval, a part of the Office of Communication Services, although providing the client with a different type of information than the Curriculum Laboratory, cannot provide a total service to the requester. The staff of this area provide answers to concise research questions using computer services contracted from Lockheed Information Systems, via the DIALOG system. This provides the patron with access to some 65 computerized reference bases. Approximately, 90 percent of these questions are presently answered using one base, namely the Educational Resources Information Center base, more commonly known as ERIC. The materials used to provide the copy data, both hard copy and microfiche, for this system is currently housed in the Materials Center.

However, this service, as the Curriculum Laboratory, is operated independently from the Materials Center. Using the same functional comparison in Table 1, it will be noted that the majority of the tasks of this service fall within categories VI, VII and VIII.

There are primarily two observations that should be made at this point:

(1) From a cost effective standpoint, the cost of maintaining for 60 hours may at some time in the future become prohibitive, and

(2) From observation, there is currently no specific means of accessing previously acquired data.

In regard to point 1, there are currently other sources which provide SDC services at a greater savings to the users. One such instance is Project 6121. The cost analysis comparing standard retrieval from DIALOG and 6121 is given in Appendix B.

As to point 2, there is currently no consistent means of re-using information retrieved from DIALOG. That is, once a search strategy and results are used, they are not filed for future reference. Ideally, a completed search and strategy should be indexed and filed. This would allow a subsequent user A along the same parameters to be accessed by pulling and updating the original file rather than developing a new strategy and completing a new search.

Libraries, periodically published listings of searches on file in information retrieval would allow educators to see what other educators are working in educational research, and, as a by-product, this might link various educators across the state together who are interested in the same topics. This will also provide an impetus for a greater number of requests. A system that is being used, and can prove its usage will promote further usage.

Our demonstration sheet, Table 1, shows those services offered by Information Services as compared to those offered by the Chemical Laboratory. Neither provides a complete service, only portions thereof.

Therefore, their association, alone, would still not provide a comprehensive service; rather, they provide a piecemeal solicitation procedure at different ends of the information spectrum. The one system, of the three, which provides a common base with separate encompassing all levels is the Materials Center, as shown in Table 1.

The Materials Center

The Materials Center provides as comprehensive a service base as found anywhere in the DOE presently. It currently provides materials- print and nonprint, reference services, specialized bibliographies, research services, etc., to its clientele. It should here be realized that the Materials Center with the staff of four handled over 11,000 items requested by whomever in the calendar year 1977. (See Appendix B for monthly circulation breakdown). On the average, this is seen as a total of more than 8,000 items per month.

There are wide areas of service available from the Materials Center as shown in Table 1. All areas listed are involved upon in the comprehensive services offered. For any information center to be successful, it should be able to answer as many queries as are necessary to meet the stated needs of the user. To the past the Materials Center has been responsible

for training sessions, indexing, developing requested bibliographies, materials, and various other services.

The center provides both the vehicle and expertises necessary to correlate materials/services for the KDE. The process then becomes one not so much of having the direct knowledge, but rather knowing how and where to find that knowledge.

Correlation of Existing Services

The Materials Center should be expanded to include as subsidiary resources the Curriculum Laboratory and Information Retrieval as explained below:

(1) Of the three, it alone houses the professional expertise necessary to correlate classification of materials and services to provide the patron with optimum data using a minimum amount of turn-around time.

The professional staff of the Materials Center has the background necessary to efficiently utilize educational resources. Not only in the techniques of acquisition, such as are found in the Curriculum Laboratory, and in the techniques of retrieval, as is found in Information Retrieval, but also the Materials Center staff is knowledgeable in the assimilation of such data into a usable format. Therein, the development of a format, lies the key to successful utilization of resources. It is not the purchase, nor is it the act of pulling together of sources that is the crux of a usable information system; rather, it is the classifying of sources into a comprehensive system for the eventual benefit of the client.

(2) By integrating resources of the three, requests can be handled more efficiently with respect to time.

Under the current situation, although requests are answered in a relative minimum amount of time, the time factor required for moving requests from area to area could be eliminated by directing them to one source, the Materials Center. From here, it could be decided if a partial search were required or if a comprehensive search were necessary. Materials could then be gathered from all appropriate sources and sent to the requester as a total package, rather than in separate bits and pieces. Arrival of data in component parts can often be misleading to the user, who must decide how to best use what they have received.

(3) Correlation of the three insures all areas or appropriate areas of accessed.

With requests arriving at three different points as they do now, quite often the two other possible sources of information remain untapped. A single entry point procedure would broaden the scope of available materials/services, and, at the same time, narrow the chance for error by providing the appropriate types of data to meet the needs of the client.

The Comprehensive Process

The ideal of a comprehensive process is presented at this point, to provide the reader with the total concept toward which this paper is being developed. The scenario which follows is shown prior to the organizational description as a means of giving the reader an idea of the total process.

Scenario

A request arrives by mail to the Information Center. The letter contains the following information: A principal of a central Kentucky elementary school has requested data concerning middle schools. His staff will be going into a middle school situation at the beginning of the next academic year. What data can the Information Center provide?

Since this is a comprehensive request, copies of the request are forwarded to the Materials Center, Curriculum Laboratory, and Information Retrieval. Each of the individual actions of the above three areas will be necessary to provide a complete information package.

The Information Specialist decides that at least two initial search strategies of the ERIC system are feasible. Inasmuch, as this is a "new" concept for this school, both administration and instruction should be viewed. The specialist checks the file of previously run searches and finds a search completed six months prior to this on middle school administrative techniques. Therefore, only an update of this search will be required to provide the needed data in administration. By comparison, since a search has not been run on middle school instructional techniques, the Information Specialist must design a new strategy for this aspect of the request. Both new strategy and update strategy are given to the Information Specialist's secretary to be run on the computer terminal. The data is collected and printouts of desired documents are requested as well as printouts of new articles listed for the updated search.

Concurrently, the Curriculum Laboratory Director will begin compiling a list of consultants with expertise in middle schools, listing areas within the middle school where they can be of help. In addition, a pre-designed copy of the technical services available from the Curriculum Laboratory is pulled and placed with our completed consultant listing. This list of technical services may include such services as the design of teacher developed, classroom-usable items, commercial classroom items available, various skill workshops which may be held, etc.

Results of the searches done by Information Retrieval and services/consultants available through the Curriculum Laboratory are forwarded to the Materials Center Director. At this point, the Information Center package begins to take shape.

During this time, the Materials Center Director has begun to pull together the remainder of the package. The finished package may consist of the following items: 15 curriculum guides on discipline scope and sequence, a filmstrip/cassette presentation on the pros and cons of a middle school, xerox articles concerning the topic from the vertical file, a listing of on-going middle school programs in the state, the names of five persons who can be contacted to work with the staff in middle school development, a copy of a bibliography of commercial books dealing with middle schools, and publications developed by the Kentucky Department of Education dealing with middle schools.

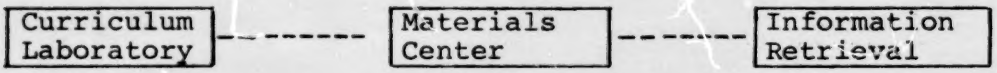
A copy of the original request is prepared as a packing slip, noting those items which the staff may keep and those which must be returned to the Information Center with the date of return attached. In addition, since the Curriculum Laboratory Director and possibly consultants from the Bureau of Instruction have offered their services to work with the school staff, a copy of materials sent is forwarded to her. Packing slip, materials noted, and a card extending the willingness to be of further help, if needed, is boxed, and the entire package is sent to the principal. Total time from request to packaging is one week.

From the above scenario, it can be seen that all sources were tapped, both material and human, in a manner known as "one at a time together". The various sources were then coordinated through the Materials Center in such a manner as to provide the data available in a complete package format. Hence, less confusion to the school staff.

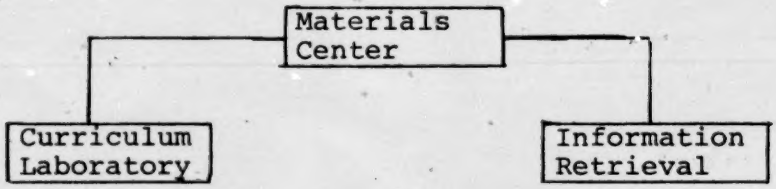
The arrival of such a package at the school then allows the staff to decide upon its own individual division of responsibility with the Material Center Director's note indicating that any further assistance is available for the asking. One, single request accessed print, machine, and human resources from the Department of Education.

Reorganization to Meet the Needs of the Scenario

As previously shown, the present organization of the three component parts of this information network is presently a loosely connected bundle of resources:



It is recommended that this be altered to the following configuration:



It should be understood from the onset, that this schematic is for information flow coordination only. Administratively, it is very important that the Curriculum Laboratory remains a part of the Bureau of Instruction and Information Retrieval a part of the Office of Communcation Services. The logic behind this is that the compartmentalization of the Curriculum Lab and Information Retrieval into the Materials Center administratively would sever necessary information links with their current bureau and office, respectively. But, by the same token, both the Bureau of Instruction and the Office of Communication Services should realize that for efficiency of information dispersal to users, Curriculum Lab and Information Retrieval personnel should receive data requests and report data collection through the Materials Center.

For such information to be operative, one comprehensive collection point must be utilized; one person must take the responsibility for such request referral.

Organization of Sub-Collections

Due to the wide variety of materials available in various formats, this portion of the document will present each major sub-collection and describe its individual means of organization. It must also, however, be realized that all parts comprise the total package. The Materials Center simply provides the vehicle for collection, classification, storage, and retrieval for all bureaus and offices. Maintenance of small subsidiary resource centers by individual bureaus/offices divides the potential use of materials inasmuch as they present materials owned by the Department of Education, and, yet, unattainable except by a small, select audience. This, in turn, minimizes the overall resource base of the department.

The above, small centers directly affect the ability of the Materials Center to relate to requests from schools in a comprehensive manner. Likewise, with the accessibility of the Materials Center to Department personnel, there seems no logical reason to favor maintenance of these satellite centers. For effective use of materials, all data should become a part of the Materials Center file.

The sub-collections of the Materials Center would be as follows:

1. books, print materials
2. periodicals
3. curriculum materials

4. Vertical files
5. Audio-visual materials
6. ERIC documents and indices
7. State Department of Education publications
8. IPs programs
9. Human Resource File
10. A-V hardware

These categories will be presented individually with the development of each sub-collection and its access method over a period from the present through the instigation of the department's Management Information System (MIS). This is done in anticipation of placing the entire Materials Center collection on the MIS for immediate access via teletype terminal printout. This would provide immediate bibliographic printout of Materials Center holdings in all media, as well as individual searches in any combination of the above sub-collections.

This could be done in the following manner. The MIS could employ the available ERIC search program to provide a basis for instant accessing of the entire collection, regardless of material format. The only major change necessitated by using this system will be the conversion of currently used subject headings from the Sears format to the ERIC descriptor format. This in itself will provide the following advantage: Whereas the Sears format is a subject heading system relevant to all areas of data, the ERIC descriptor format is designed to specifically access educational topics using educational terminology. To understand the ramifications of such a system the reader need only to peruse The Thesaurus of ERIC Descriptors. This publication lists all descriptors (subject headings) in addition to the manner in which these terms may be used in conjunction with one another.

The actual conversion of subject headings from Sears to ERIC will pose no great problems. Any new sub-collections added to the Materials Center can be started from the onset using the ERIC system. Older collections currently using Sears can be converted to the ERIC format as times permit. This could be done during the slower periods with a goal for completion of all conversions by the end of 1980. This would allow adequate time to activate the MIS, include the ERIC program, and integrate the collection into MIS.

Prior to the integration of the collection with ERIC on MIS, the standard card catalog would be maintained using the same ERIC format. This provides a back-up system to cope with the contingency that, due to some unforseen problem the MIS may be unavailable to the Materials Center. For this reason as well as a means of explaining the ERIC format, sample entries for the card catalog and sample MIS printout will be included in this document for the reader's use. The proposed printout format for the MIS information is shown in Appendix D.

It should be noted here that the Materials Center as information center will have a much different physical organization than the normal "browsing" center. Whereas a browsing center is designed directly for the efficiency of the user; by its nature, an information center is not designed for aesthetic pleasure, but rather for the efficient task of data collection to respond as quickly as possible to a mail or telephone request. An information center is also designed to

facilitate staff use in gathering the needed data rather than patron use. This is the method which should be employed in organizing the Materials Center since 90 percent of the requests received in the center are from sources other than the personal appearance of educators.

Collection: Books, Print Materials

Current collections of books in the Materials Center are generally of a reference nature and are classified and cross-referenced using the Dewey Decimal Classification System. The 4,500+ volumes in this segment of the collection are currently available through a standard card catalog system and, having a usable access system, would remain in the same format with subsequent conversion to the ERIC system taking place on an "as time permits" basis. The entire book file would be entered at one time on the MIS. This would remove the need for a double file system during the conversion period. For sample printout as it would appear on MIS, see Appendix D.

Collection: Periodicals

The periodical collection of the Materials Center is the only collection which is not easily converted to ERIC descriptors. Currently subscribing to 129 periodicals in microfiche format, the Material Center, due to the nature of the sheer bulk of articles indexed every month, would not find the on-going process of subject entry descriptor economically feasible. Even with this problem, it is found that Information Retrieval can provide access to those periodicals indexed in the ERIC system via Current Index to Journals in Education (CIJE).

Those periodical titles which are not a part of the normal indexing procedure of CIJE may be adequately accessed using the indices published by H.W. Wilson and subscribed to by the Materials Center. These publications are Abridged Reader's Guide and Education Index. However, the use of ERIC as the prime source and the Wilson publications as a back-up, reserve system will pose no great disadvantage. By and large, using CIJE, ERIC descriptors can still be used as the correlating factor. An example of the Information Retrieval printout for journal ertries is found in Appendix E.

Collection: Curriculum Guides

The continued development of a comprehensive collection of curriculum guides can provide one of the most cost-effective collections available and would be of great use to educators involved in curriculum development and/or revision. Materials of this sort pose two problems. The first deals with storage. Curriculum guides rarely appear in a hardbound format. These paperbound curriculum guides, although initially being less expensive, present a storage problem. If shelved in a normal manner, they tend either to become bent and torn or simply will not stand at all. Remembering that this Materials Center is designed as a response center, not a browsing center, the storage problem can be met by modifying the system for storage to coincide with the ERIC documents storage system. Inasmuch as the ERIC retrieval program requires a number coding sequence, curriculum guides are to be arranged in the following manner:

The ERIC coding system is designed to use a system of two letters and six digits for accessing data. It is suggested that as each curriculum guide is processed, it is assigned a sequential accession number from a predisposed block of numbers assigned to a particular curricular area.

Arbitrary blocks of 20,000 numbers for each category to provide for growth of a particular area are listed in Appendix F. This division provides for the possibility of fifty (50) categories with 20,000 items in each area or a total of 1,000,000 items before the system will need any modification.

After initial descriptor coding and digit assignment, the material is labeled by letter/digit code and placed in an archive file on the shelf for storage. All inclusive numbers are listed on the outside of the box for retrieval purposes. Sample entries of this type are found in the proposed MIS printout found in Appendix D. This method would then provide a viable solution to classification, storage, and retrieval of curriculum guides.

In the interim before the institution of MIS, simple catalog card entries can be made and added to as a cross-reference technique for use in the card catalog. The format for these cards will follow that of the ERIC Descriptor Post Display. A sample catalog card using this format is shown below.

SOCIAL STUDIES * GRADE 2

CG 020 099
CG 020 342
CG 037 401
CG 037 555

Collection: Vertical File

Vertical files historically have been the first non-book collections in libraries/materials centers. This file of fugitive information has often been the source of material which cannot be located by conventional means. Even this file can very easily be integrated into the ERIC system without any problems.

The conversion process simply consists of converting subject headings currently used to file data into synonymous ERIC descriptors. As with the book collection, this can be accomplished on "as time permits" basis during slack time. In actuality, two weeks of uninterrupted work would allow sufficient time for the complete reclassification of the present holdings of the Materials Center.

Proposed printout display for vertical file entries may be found in Appendix D. Sample card catalog entry for the vertical file follows the Descriptor Post Display format and is shown below.

Individualized Instruction (VF)

Collection: ERIC

Inasmuch as ERIC is the basis for the overall conversion of materials into a universal coding system for the Materials Center, the system currently used by Information Retrieval requires no translation into descriptors to be correlated with the rest of the Materials Center collection on ERIC. Both the available set of microfiche and appropriate indices, RIE and CIJE, are currently housed in the Materials Center collection.

However, there are some procedural recommendations which should be made in the relationship between the Materials Center and Information Retrieval. Initially, searches requiring the use of computer terminal time can be made more cost effective if they are stored and used more than one time. This can best be accomplished by filing all searches according to major subject searched with descriptor cross-indexing in a separate ERIC search file maintained by Information Retrieval.

It is also suggested that periodic listings of search topics be published and disseminated to all school districts in the state. A facsimile of one of these publications may be found in Appendix C. It is felt that by publishing this list it will promote requests for similar searches and reduce the per search cost when correlated with the number of times a search is used.

In addition, it is much less expensive to update a previously run search than it is to generate a new search on the same topic. Also procedurally, if a search has been well-negotiated and a strategy well-defined, there should be no

needed as to why a secretary cannot do the actual terminal work, thereby freeing the information specialist to work on further applications and strategies.

A successfully written strategy should yield an area that 10-15 milestones dealing very specifically with the topic requested. Area extensive enquiries requiring comprehensive data collection, from 30 to 100+ milestones, should not be done using the terminal alone. Description from displays should be used to hand search publications with computer terminal time expenditures used only to open the period between the last published display and the present. The data accessed from the terminal in this mode should be used only to the reference number retrieval forms. A sample of the DIOG data printout may be found in Appendix B.

Collection: Audio-Visual Materials

The audio-visual collection currently consists of the following categories of items: films, audio kits, including filmstrip/cassettes, audio tapes, and video tapes. To understand the development of this group of materials as a sub-collection, the reader must be reminded of the purpose of the Materials Center, namely that of reference, research, and response as opposed to browsing collections. In a case such as this, these materials are of easiest access to the person responsible for their circulation by obtaining materials using like format as a guide, i.e., audio kits housed together, tapes housed together, etc.

The key to any placement of material is the comprehensiveness of the indexing more than the actual physical placement in this situation. Delineation by descriptor and type of media is necessary to meet the current card catalog needs. Upon completion of the MIS programming, this data is then easily transferred to machine readable format. Sample printout data for this collection is found in Appendix D. Interim sample card catalog entries are shown below.

DRUG ABUSE

AV 001 032
AV 027 998
AV 044 222

Collection: State Publications

Numerous state funds are expended each year in the production of publications by the various bureaus and offices of the Department of Education. To date, however, there has been developed no concise means of subsequent storage and access to these publications.

The suggested classifying schemata to integrate these publications with the Materials Center collection would be very similar to that used for the curriculum guides discussed in a previous section. In this specific case, however, rather than blocks of numbers being assigned to curricular areas, the

blocks of numbers would be assigned to bureaus and offices. A complete classification scheme by block may be found in Appendix F. Proposed sample printout of these documents is listed in Appendix D as they would appear on MIS. Interim card catalog entries are given on the sample card below:

METRIC EDUCATION

SP 003 427
SP 007 211
SP 011 110
SP 018 398

Collection: Important People-Important Programs

This collection consists of two component, but not necessarily related, parts: "IP", programs, and "HRF", human resources. "IP" is a new file with the first printing in October, 1977. This file is currently cross-indexed using the ERIC descriptor format. The coding numbers will have to be slightly altered to conform to the standard six digit format of ERIC. "IP" in itself is a system designed by the Unit for Dissemination to provide access to programs which are on-going and have proven themselves successful by a standard set of criteria as stated on the "IP" application form.

The HRF (Human Resources File) component of this set consists of a listing of educators across the state of Kentucky who have volunteered their names for inclusion in the file.

The main purpose of the "HRF" is to provide an information exchange source between educators. This is done to locate and identify human resources which might otherwise go untapped.

It should here be noted that both files, "IP" and "HRF", are used simply as source points. Programs and names included in either file do not denote Departmental recommendation. Sample MIS printout for this bi-component system is included in Appendix D.

Collection: Audio-Visual Hardware

The storage and maintenance of audio-visual hardware is the one segment of the Materials Center collection which is provided almost exclusively for the use of the Department of Education staff. Heretofore, hardware has been kept in various bureaus and offices. This has caused hardware which, due to the limited knowledge of its presence, has not been used to its full potential. It is also quite probable that there has been unnecessary purchase duplication due to the lack of knowledge that certain hardware already existed within the department.

In addition, maintenance of this hardware has probably been less than adequate since the usual procedure is "equipment that is operational is used, and equipment that doesn't work is shoved in a drawer and forgotten." It is therefore suggested that for optimum use of departmentally purchased audio-visual hardware, as well as adequate maintenance of expensive equipment, all items be collected, maintained, housed, and circulated by the Materials Center.

Summary

The Kentucky Department of Education Materials Center has been given the task of providing information on educational topics to elementary, secondary, and post-secondary vocational schools in Kentucky. By closer correlation of materials and services presently extant in the KDE, the Materials Center can provide the information in a more efficient manner than has been previously offered. In addition to the projected plan for the conversion of the total collection under one classification scheme, the ERIC descriptor program, for eventual integration with the Management Information System, with machine readable format, each sub-collection has been presented with an alternative means of indexing in the card catalog using the same ERIC format.

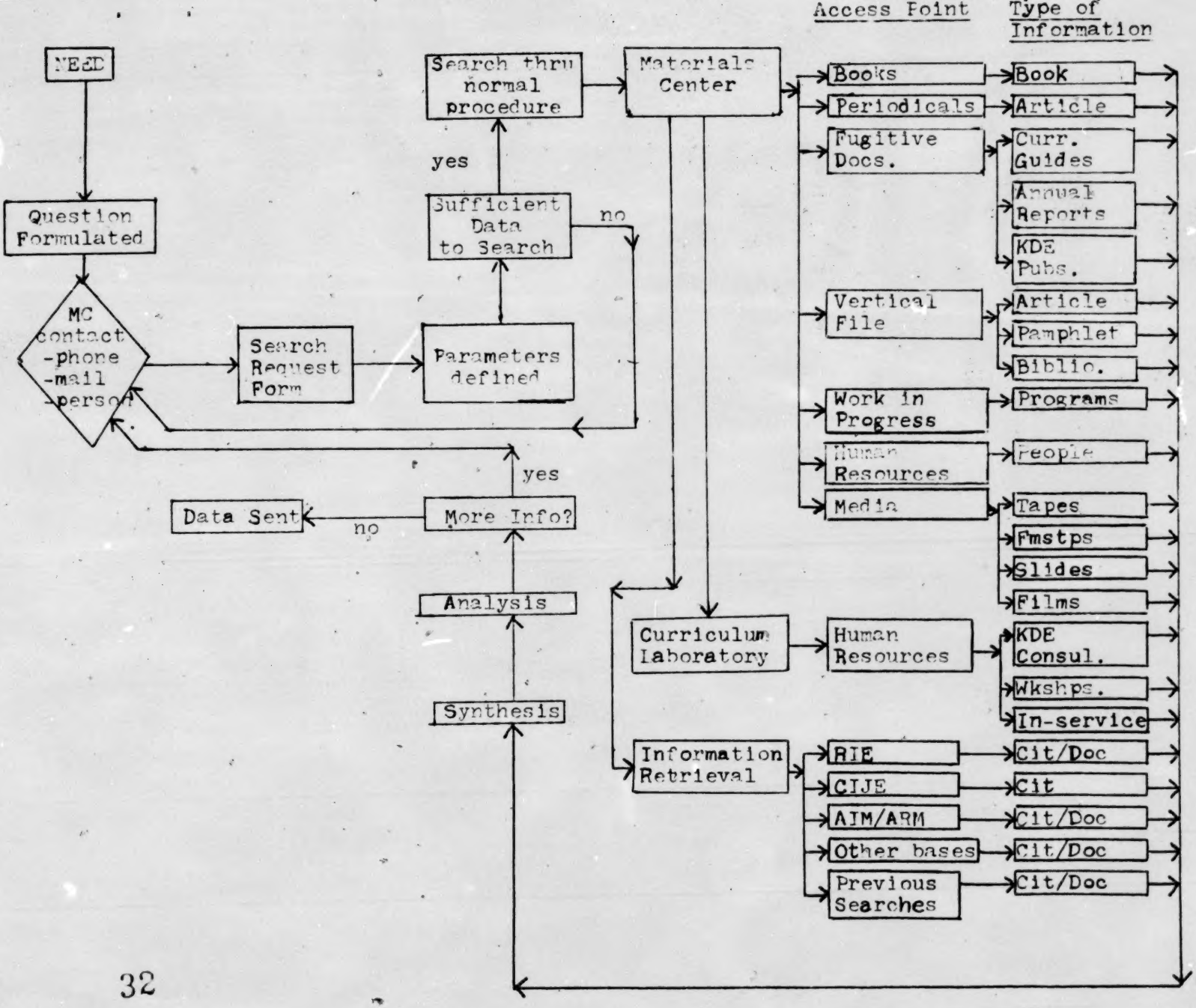
But it must be realized, at this point, that whether the MIS or the card catalog system is used, the true accessibility of the collection is based upon the expertise of the staff of the Materials Center. The card catalog and MIS are both designed for the use of the user and bibliographic generation. The staff of any information service must maintain a working knowledge of the collection using their own experience and subjective knowledge as to specific types of data and amounts to be utilized in answering designated questions.

By and large, it is the personal knowledge of the individual staff member with respect to the total center collection which answers the questions of the clients. It is of prime importance that materials housed in the susidiary centers throughout the

department be housed as a part of the collection of the Materials Center. This must be done in order that these items might be adequately indexed for access. This will also allow greater cross-bureau/office usage of items and less duplication in the purchase of materials.

It is also recommended that the Curriculum Laboratory and the Information Retrieval Service work jointly with the Materials Center using the procedural format outlined on page 28a.

Ultimately, the organization must be designed to meet the needs of its clientele, not the clientele programmed to meet the needs of the organization.


Access Point
Type of Information
NEED
Question Formulated
MC contact -phone -mail -person
Search Request Form
Parameters defined
Sufficient Data to Search
yes
no
Search thru normal procedure
Materials Center
Books
Book
Periodicals
Article
Fugitive Docs.
Curr. Guides
Annual Reports
KDE Pubs.
Vertical File
Article
Pamphlet
Biblio.
Work in Progress
Programs
Human Resources
People
Media
Tapes
Fmstps
Slides
Films
yes
More Info?
no
Data Sent
Analysis
Synthesis
Curriculum Laboratory
Human Resources
KDE Consul.
Wkshps.
In-service
Information Retrieval
RIE
Cit/Doc
CIJE
Cit
AIM/ARM
Cit/Doc
Other bases
Cit/Doc
Previous Searches
Cit/Doc

APPENDIX A

Comparative Cost of ERIC Searches Using DIALOG and WISE

Comparative Costs of ERIC Searches Using DIALOG and WISE

	DIALOG	WISE
Connect charge	-0-	1.50
Computer cost	25.00	15.00
TELENET (Per hour hookup)	10.00	4.00
Printout Cost	10.00	5.00
Total Charges	45.00	25.50
Net Savings		+19.50

Other:

WISE--

- *requires no usage contract
- *no minimum per month usage
- *billed per month at end of month
- *accessible 24 hours per day

DIALOG--

- *usage contract @ $5,000
- *minimum usage required to maintain discount
  (above figures for DIALOG are at discount level)
- *accessible only at certain hours

APPENDIX B

Circulation Records
for the Materials Center

Calendar Year 1977

Materials Center Circulation
Annual Tally - January 1977 through December 1977

Category	Number Requests Per Category	Number Items Sent Per Category
Films, Tapes, etc.	1626	2076
AV Equipment	313	351
Other Equipment	331	331
Xerox (Magazines)	632	3025
Xerox (Newspapers)	*	4208
Special Searches	630	639
ERIC searches	75	77
Microfiche (duplicates)	63	466
(hard copy)	88	3371
Curriculum Guides	375	1705
Free KDE Publications	1201	5063
Books	515	1426
Letters	*	1683
Guidance	116	116
Materials Printed Workshop	*	1200
Totals	5965	25737

*Automatic service: Requires no initial request

APPENDIX C

General Request Form

KENTUCKY DEPARTMENT OF EDUCATION

Information Service Request Form

Unit for Dissemination
Office of Communication Services
Capital Plaza Tower
Frankfort, Kentucky 40601
Phone: (502) 564-2116 or
(800) 344-5368

NAME _____ POSITION _____

SCHOOL/SYSTEM _____

ADDRESS _____
Street

_____
City _____ Zip Code

TELEPHONE WHERE YOU MAY BE REACHED _____

For Office Use ONLY

Batch Number

Date In

Date Out

Please state below, as fully as possible, your request for information. Include the following items in your statement: (1) Grade or class; (2) Student ability level; (3) How information is to be used when received.

Referred To:

Please remember that what you receive is dependent upon the specificity of your request.

What type of materials do you need? Please check (✓).

____Bibliographies
____Classroom Resource Materials
____Classroom Visitor Materials
____Curriculum Guides
____Directories
____Programs
____Research

DO NOT WRITE IN THIS SPACE:

Area _____

ADC _____

KDE/OMP 73-1001

SCIENCE CURRICULUM GRADE 2

10001749
JOHNSON, EDWARD, LETS TEACH SCIENCE, VIKING PRESS, 1974,
281 pages

10001780
EDWARDS, WILLIAM, THE MICROSCOPE, EDUCATORS PRESS, 1977.
52 pages

20180027
ILLINOIS, CHICAGO, SECOND YEAR SCIENCE, 1977, 181 pages

20180039
KENTUCKY, LEITCHFIELD, SCIENCE, GRADE 2, 1964, 120 pages

20180172
KENTUCKY, LOUISVILLE, SCIENCE, GRADE 2, 1972, 273 pages

20180251
MICHIGAN, DETROIT, ELEMENTARY SCIENCE, SECOND GRADE, 1977,
201 pages

40003279
GUIDANCE ASSOCIATES, HOW PLANTS GROW, FILMSTRIP/CASSETTE, 1972.

40003397
WILLIAMS, JOHN, PHOTOSYNTHESIS, FILMSTRIP/RECORD, 1975

50025911
BUREAU OF INSTRUCTION, TEACHING SCIENCE IN THE ELEMENTARY
SCHOOL, 1974, 26 pages

60000305
KENTUCKY, LEXINGTON, ELEMENTARY SCIENCE PROJECT, 402 NORTH
FIRST STREET, LEXINGTON, 40000, 606-311-7281

60500012
LEWIS, AL, 32755 LEXINGTON AVENUE, DANVILLE, 40000, 606-888-7511

60500017
ANDERSON, DR. ALICE, 402 NORTH FIRST STREET, LEXINGTON, 40000,
606-31107281

NOTE: This is a facsimile of the MIS printout only. If this bibliography were to be sent to a requester, a correlated ERIC search would be attached.

APPENDIX E

ERIC Search Printout Including
RIE and CIJE

APPENDIX E

Part 1

Current Index to Journals in Education
Search Results

EJ083660 VT505135
Implications for Research in Career Educationa-Related Curriculum Development for Industrial Arts
Miller, David H.
Man/Society/Technology--A Journal of Industrial Arts Education, 32, 8, 315-316 May-Jun 73
Descriptors: •Career Education/ •Industrial Arts/ •Curriculum Development/ •Research Opportunities/ •Curriculum Research/ Research Needs/ Elementary Grades/ Secondary Grades/ Research

EJ081088 VT505080
Career Awareness in the Elementary School
Elson, Amy M.; Elson, Donald E.
Agricultural Education Magazine, 46, 3, 67,70 Sep 73
Descriptors: •Educational Programs/ •Elementary Grades/ •Career Education/ •Integrated Curriculum/ Program Development/ Occupational Information
Identifiers: •Career Awareness

EJ081068 VT504998
Career Development Education: K Through Post-Secondary
Bottoms, Gene
Occupational Education Forum, 3-15, 1-15 Spr 71
Descriptors: •Vocational Development/ •Integrated Curriculum/ •Career Education/ •Vocational Education/ •Work Attitudes/ Elementary Grades/ Secondary Grades/ Post Secondary Education/ Work Experience/ Occupational Clusters

EJ079317 RC501259
Project Span: A Career Education Model
Marsh, Jim; And Others
Tennessee Education, 3, 2, 5-10 Sum 73
Descriptors: •Career Education/ •Elementary Grades/ •Secondary School Students/ •Vocational Development/ Career Planning/ High School Students/ Vocational Counseling/ Junior High School Students
Identifiers: •Project SPAN/ Start Planning Ahead Now
Memphis's Project SPAN (Start Planning Ahead Now) consists of career awareness in the elementary grades, vocational and career exploration in junior high, career preparation in high school, and placement services for graduating seniors. (NA)

EJ079221 VT504947
USOE Project To Provide K-12 Career Education Curriculum Guides For Agriculture
Ridenour, H. E.
Agricultural Education Magazine, 46, 1, 14 Jul 73
Descriptors: •Career Education/ •Agriculture/ •Curriculum Guides/ •Instructional Materials/ •Material Development/ Elementary Grades/ Secondary Grades/ Agricultural Education/ Agricultural Occupations/ Curriculum Development

EJ076084 VT504807
Prescription for K-6
Ressler, Ralph
School Shop, 32, 8, 73-75 Apr 73
Descriptors: •Career Education Classroom Design/ Educational Equipment/ Educational Facilities/ •Elementary Grades/ Industrial Arts/ Learning Activities/ •Learning Laboratories/ •Occupational Clusters
Identifiers: •Career Awareness
The value of laboratory activity to provide insight into various kinds of careers should be utilized. (Author)

EJ076078 VT504801
Memphis SPANs the Gap
Marsh, James D.; Hugueley, James
School Shop, 32, 8, 55-57 Apr 73
Descriptors: •Career Education/ Elementary Grades/ Industrial Arts/ Occupational Information/ •Program Descriptions/ Secondary Grades/ •Skilled Occupations
Identifiers: •Exemplary Programs/ Start Planning Ahead Now/ SPAN

EJ072934 CG505429
Sex Differences in the Occupational Choices of Second Graders
Siegel, Claire Lynn Fleet
Journal of Vocational Behavior, 3, 1, 15-19 Jan 73
Descriptors: Career Education/ •Educational Research/ •Elementary Grades/ •Occupational Choice/ Role Perception/ •Sex Differences/ Vocational Counseling/ •Vocational Development
A questionnaire was administered to 61 second graders. Sexual differences in occupational choices were apparent. Boys chose twice as many occupations as girls. More boys than girls knew their father's occupation. A series of hypotheses based on the above data was generated. (Author)

APPENDIX E

Part 2

Research in Education
Search Results

ED023980 AC002886
Comparative Policies on High School Diplomas for Adults, U.S.A.
Richmond Public Schools, Va.
62 50p.
EDRS Price MF-$0.76 HC-$1.95 PLUS POSTAGE
With the aim of evaluating state policies on high school diplomas for adults, the Richmond, Virginia, public school system conducted a national survey on states and territories issuing diplomas or equivalency certificates on the basis of the General Educational Development test or other standardized tests; kinds and sources of tests being used; provisions for equating such tests or portions thereof in terms of high school credits; the status of credits earned in private schools, out-of-state public schools, trade or vocational schools, business schools, and home study programs; states with high school completion programs for adults, states giving credit for military training and related programs; and states recognizing occupational experience and competence in evaluating the academic achievement of adult candidates for diplomas or equivalency certificates. Responses indicated wide variations in policies and procedures as to the nature, extent, and conditions of programs of high school completion. When the states were ranked by affirmative responses to questions or parts thereof, 31 were found to have more liberal policies than Virginia, four were on a par with Virginia, and 14 were less liberal. Several changes in policy and practices were suggested for Richmond's program of high school completion for adults. (ly)
Descriptors: Academic Standards/ *Adults/ *Comparative Analysis/ Credits/ *Educational Certificates/ Equivalency Tests/ *High Schools/ Program Administration/ Public School Adult Education/ *State Standards/ Statistical Data/ Surveys/ Units Of Study (Subject Fields)
Identifiers: General Educational Development Test/ *Virginia

ED019923 JC680144
REPORT OF THE COMMITTEE APPOINTED BY THE MINISTER FOR EDUCATION AND SCIENCE TO INVESTIGATE THE PROPOSAL TO ESTABLISH A COLLEGE OF ADVANCED EDUCATION AT BATHURST. VOLUMES I AND II.
JUL67 412P.
EDRS PRICE MF-$0.76 HC-$20.94 PLUS POSTAGE
VOLUME I OF THIS STUDY IN SUPPORT OF THE ESTABLISHMENT OF A COLLEGE OF ADVANCED EDUCATION IN BATHURST, AUSTRALIA, CONTAINS THE TEXT OF THE RESEARCH, ARGUMENTS, AND PROPOSALS. THE APPENDIXES IN VOLUME II INCLUDE THE AMPLIFYING CHARTS, TABLES, QUESTIONNAIRES, SURVEY RESULTS, ETC. THIS PROPOSED COLLEGE DIFFERS IN CONCEPT FROM THE USUAL AMERICAN JUNIOR COLLEGE, IN THAT IT CONFINES ITSELF TO OFFERING ONLY PROFESSIONAL-LEVEL COURSES IN THEIR OWN RIGHT. (THE AMERICAN TYPE OF COMMUNITY COLLEGE, WITH ITS WIDE RANGE OF PROGRAMS, IS PRESENTLY BEING CONSIDERED AS A WAY OF MEETING THE EDUCATIONAL REQUIREMENTS OF AUSTRALIA'S COUNTRY AREAS.) THE COLLEGE WILL BE PRIMARILY A 2-YEAR INSTITUTION AWARDING DIPLOMAS IN CERTAIN VOCATIONAL FIELDS (AGRICULTURE, LAW, BUSINESS, ENGINEERING, LIBRARIANSHIP, COMMUNICATIONS, AND PARAMEDICAL SERVICES), BUT WILL ALSO OFFER A GENERAL EDUCATION WITHOUT SPECIFIC VOCATIONAL GOAL. THE COLLEGE'S PURPOSES AND ITS PROPOSED LOCATION, FINANCING, AND ADMINISTRATION ARE DESCRIBED. SIMILARITIES AND DIFFERENCES BETWEEN THE AUSTRALIAN AND AMERICAN PHILOSOPHIES OF POST-HIGH SCHOOL EDUCATION ARE NOTED THROUGHOUT THE REPORT. (HH)
Descriptors: College Administration/ College Admission/ College Curriculum/ *Foreign Countries/ *Higher Education/ *Junior Colleges/ National Surveys/ Professional Education/ *Technical Education/ *Vocational Education
Identifiers: AUSTRALIA/ BATHURST

ED018685 AC000537
A SUMMARY OF THE NUEA HIGH SCHOOL SURVEY OF MARCH 1966. (TITLE SUPPLIED).
HARTSELL, CHARLES W. ; PETERS, JAMES N.
National Univ. Extension Association, Minneapolis, Minn.
MAR66 8P.
EDRS PRICE MF-$0.76 HC-$1.58 PLUS POSTAGE
A STATISTICAL SUMMARY OF THE NATIONAL UNIVERSITY EXTENSION ASSOCIATION (NUEA) HIGH SCHOOL SURVEY OF MARCH 1966 DEALS WITH 1700 CORRESPONDENCE COURSES OFFERED BY EXTENSION DIVISIONS OF UNITED STATES COLLEGES AND UNIVERSITIES. THIRTY-SIX OF THE 64 NUEA MEMBER INSITUTIONS OFFER PRE-COLLEGE INSTRUCTION. TOPICS COVERED BY THE SURVEY ARE--ENROLLMENT FIGURES, NUMBER OF HALF-UNIT COURSES OFFERED, INCREASING AND DECREASING NUMBER OF COURSES, SOURCES OF SYLLABI, SOURCES OF FUNDS, METHODS OF PROMOTION OF PROGRAMS (PAID ADS, MAILING LISTS, VISITS TO SCHOOLS), DIPLOMAS OR EQUIVALENCY CERTIFICATES GRANTED, AND STUDENT ADMITTANCE REQUIREMENTS. THE REPORT ACCOMPANYING THE SUMMARY STATES THAT THERE IS A NEED FOR EXPANSION OF COURSE OFFERINGS LEADING TO THE HIGH SCHOOL DIPLOMA AND FOR IMPROVED METHODS OF INFORMING THE POTENTIAL STUDENT OF THE PROGRAMS OFFERED. THE QUESTIONNAIRE IS INCLUDED. (AJ)
Descriptors: Admission Criteria/ *Correspondence Courses/ Enrollment/ Financial Support/ *High School Curriculum/ *Questionnaires/ *Statistical Data/ Student Certification/ *University Extension
Identifiers: PROMOTION (PUBLICIZE)

APPENDIX F

Categorical Breakdown Classification System Materials Center

Categorical Breakdown

Each area listed below is designed to provide for adequate growth of the Materials Center Collection over a period of years, both horizontally and vertically.

Category	Major Code	Letter Code	Block	Areas
Books	10	BK	000 000-999 999	All
Curriculum Guides	20	CG	000 001-020 000	language arts
	20	CG	020 001-040 000	social studies
	20	CG	040 001-060 000	mathematics
	20	CG	060 001-080 000	health, phys. edu.
	20	CG	080 001-100 000	handicapped
	20	CG	100 001-120 000	gifted
	20	CG	120 001-140 000	reading
	20	CG	140 001-160 000	foreign languages
	20	CG	160 001-180 000	fine arts
	20	CG	180 001-200 000	science
	20	CG	200 001-220 000	OPEN
	20	CG	220 001-240 000	OPEN
	20	CG	240 001-260 000	OPEN
	..	..	... ...-... ...	....
	20	CG	980 001-999 999	OPEN

*NOTE: The CURRICULUM GUIDES section has been set up in arbitrary 20,000 item blocks. With current collections included this still leaves 40 blocks of 20,000 items each open for expansion.

Category 50 (SP) State Publications 13 categories

	DIV/ UNIT	BLOCK
State Board of Occupational Education	0	000 000-025 000
State Board of Elementary/Secondary Education	0	025 001-050 000
Superintendent of Public Instruction	0	050 001-075 000
Office of Communication Services	1	075 001-125 000
Office Legal/Legislative Services	0	125 001-150 000
Office Management Information Systems	2	150 001-200 000
Office Finance/Personnel Services	8	200 001-325 000
Office Planning/Research	3	325 001-375 000
Bureau Rehabilitation Services	3	375 001-425 000
Bureau Vocational Education	5	425 001-500 000
Bureau of Instruction	5	500 001-575 000
Bureau Exceptional Children	8	575 001-700 000
Bureau Administration/Finance Local School Systems	7	700 001-800 000

*NOTE: Blocks of 25000 or multiples of 25000 were assigned by the formula listed below. This still leaves a block of 200000 numbers open for future expansion.

Category	Major Code	Letter Code	Block	Area
Vertical File	30	VF	000 000-999 999	All
AV Software	40	AV	000 001-020 000	media kits
	40	AV	020 001-040 000	films
	40	AV	040 001-060 000	audio tapes
	40	AV	060 001-080 000	video tapes
	40	AV	080 001-100 000	records
	40	AV	100 001-120 000	OPEN
	40	AV	120 001-140 000	OPEN
	40	AV	140 001-160 000	OPEN
	..	..	... ...-... ...	OPEN
	40	AV	980 001-999 000	OPEN

*NOTE: The AUDIO-VISUAL SOFTWARE section has been set up in arbitrary 20000 item blocks. With current collections included, this still leaves 45 blocks of 20000 items each open for expansion.

Category	Major Code	Letter Code	Block	Area
IPs	60	IP	000 001-100 000	programme
	60	HR	100 001-999 999	human resources
OPEN	70			
OPEN	80			
OPEN	90			
OPEN	00			

ANNEX 6

Periodic Publication of
EBIC Searches

[illegible] [illegible] 1 May 1978

When requesting copies of materials listed below, please include the following information: General code number and General title as listed in this document. Refer requests to:

General Number	Title
FB-0710	Relationship of attendance to grades
FB-0720	Work-study program, grades 9-12
FB-0730	Attendance codes, an explanation
FB-0731	Administration of Middle School Programs
FB-0750	Parent involvement in fund-raising projects
FB-0760	Multicultural Emphasis, the school administrative role
FB-0770	Attendance codes, an explanation
FB-0780	Use of school equivalency norms in student assessment
FB-0790	Interscholastic competition
FB-0797	Educational technologies for instructional studies
FB-0798	Classroom methods in science, grade 3
FB-0800	[illegible]

This is a sample page of possible codes attention required information. This number could begin with alphabetic prefix or suffix. It is designed to include descriptions of individual item descriptions which might be of interest to users.